

Appl. No. : **09/883,845**
Filed : **June 18, 2001**

REMARKS

The foregoing amendments are responsive to the May 3, 2005 Office Action. Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and the following remarks.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Response to Rejection of Claims 4-6 and 9-10 Under 35 U.S.C. 102(e)

The Examiner objected Claims 4-6 and 9-10 under 35 U.S.C. 102(e) as being anticipated by Cioffi (U.S. Patent No. 5,933,454) and also Tzannes (U.S. Patent No. 5,497,398).

Cioffi teaches an FFT-based receiver. A stream of input samples is provided to a single FFT-based demodulator 76. The samples are provided to a single FFT block. The nature of an FFT is such that all input samples are used to compute the output values. Thus, the teachings of Cioffi indicate that the same number of samples are used for all channels. By contrast, Claim 6 recites a system wherein different channels use a different number of input samples. Moreover, Cioffi teaches that a time domain equalizer can be used, but does not teach or suggest obtaining equalization parameters from a packet header.

Tzannes teaches an input vector X (118) is provided to a time to frequency domain convert to produce an output vector 112. In Column 4 at lines 60-62, Tzannes teaches that W (the number of sample values) can be greater than M (the number of signal values). However, Tzannes does not teach or suggest that a different number of samples is used on a per-channel basis. In Tzannes, the same number of samples are used for all channels. Moreover, Tzannes suggests an equalizer, but does not teach or suggest a time domain equalizer where equalization parameters are obtained from a packet header.

Regarding Claim 6, the cited prior art does not teach or suggest a time-to-frequency converter, the time-to-frequency converter configured to receive a stream of data samples and calculate L streams of output values for L communication channels, the converter configured to calculate each of the output values using N input values where the value of N is selected on a channel-by-channel basis such that a first channel uses a value for N that is different from a value of N used by a second channel.

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Regarding Claim 4, the cited prior art does not teach or suggest that L does not equal N .

Regarding Claim 5, the cited prior art does not teach or suggest that a new output value is computed for each channel each time said converter receives a new input value.

Regarding Claim 9, the cited prior art does not teach or suggest that the value of N is the basic function length.

Regarding Claim 10, the cited prior art does not teach or suggest a receiver comprising a time-to-frequency converter, the time-to-frequency converter configured to receive a stream of data samples and calculate L streams of output values for L communication channels, the converter configured to calculate each of said output values using N input values comprising an equalizer configured to equalize a data value for a first channel, said equalizer configured to determine equalization parameters by examining a packet header. Cioffi teaches that a time domain equalizer can be used, but does not teach or suggest obtaining equalization parameters from a packet header.

Accordingly, Applicants assert that Claims 4, 5, 6, 9, and 10 are allowable over the prior art, and Applicants request allowance of Claims 4, 5, 6, 9, and 10.

Response to Rejection of Claim 7 Under 35 U.S.C. 103(a)

The Examiner rejected Claim 7 under 35 U.S.C. 103(a) as being unpatentable over Cioffi (U.S. Patent No. 5,933,454), and further in view of Hershey (U.S. Patent No. 5,844,949).

Regarding Claim 7, the cited prior art does not teach or suggest the use of power lines for data transmission using time-to-frequency converters.

Accordingly, Applicants assert that Claim 7 is allowable over the prior art, and Applicants request allowance of Claim 7.

Response to Rejection of Claim 8 Under 35 U.S.C. 103(a)

The Examiner rejected Claim 8 under 35 U.S.C. 103(a) as being unpatentable over Cioffi (U.S. Patent No. 5,933,454), and further in view of Chow (U.S. Patent No. 5,479,447).

Regarding Claim 8, the cited prior art does not teach or suggest that the receiver is configured to receive communication signals from a wireless network.

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Accordingly, Applicants assert that Claim 8 is allowable over the prior art, and Applicants request allowance of Claim 8.

Response to Rejection of Claim 7 Under 35 U.S.C. 103(a)

The Examiner rejected Claim 7 under 35 U.S.C. 103(a) as being unpatentable over Tzannes (U.S. Patent No. 5,497,398), and further in view of Hershey (U.S. Patent No. 5,844,949).

Regarding Claim 7, the cited prior art does not teach or suggest the use of power lines for data transmission using time-to-frequency converters.

Accordingly, Applicants assert that Claim 7 is allowable over the prior art, and Applicants request allowance of Claim 7.

Response to Rejection of Claim 8 Under 35 U.S.C. 103(a)

The Examiner rejected Claim 8 under 35 U.S.C. 103(a) as being unpatentable over Tzannes (U.S. Patent No. 5,497,398), and further in view of Chow (U.S. Patent No. 5,479,447).

Regarding Claim 8, the cited prior art does not teach or suggest that the receiver is configured to receive communication signals from a wireless network.

Accordingly, Applicants assert that Claim 8 is allowable over the prior art, and Applicants request allowance of Claim 8.

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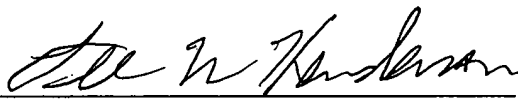
Summary

Applicants respectfully assert that Claims 4-10 and 24-46 are in condition for allowance, and Applicants request allowance of Claims 4-10 and 24-46. If there are any remaining issues that can be resolved by a telephone conference, the Examiner is invited to call the undersigned attorney at (949) 721-6305 or at the number listed below.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: October 3, 2005

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